## REMARKS

This application has been reviewed in light of the Office Action dated September 13, 2004. Claims 1-51 and 54-57 are presented for examination, of which Claims 1, 17-20, 36 and 54-57 are in independent form. Claims 55-57 have been added to provide Applicant with a more complete scope of protection. Claims 1, 17-20, 36 and 54 have been amended to define Applicant's invention more clearly. Favorable reconsideration is requested.

In the outstanding Office Action, Claims 1-16, 20-51 and 54 were rejected under 35 U.S.C. § 112, first paragraph, as not being enabled. Without conceding the propriety of that rejection, Applicant has amended the claims as deemed necessary to obviate the basis for the rejection. In particular, the term "user interpretable functional link" has been simplified throughout the claims to be simply a "functional link" and the operation of the functional link qualified as forming a "user interpretable and traversable physical path in the document between the components of information".

The Examiner's acknowledgment of the traversal of the previous Section 112 rejection regarding the language "traversable physical path" is appreciated. Quite clearly, and in line with the previous submissions, that path is also intended to be user interpretable, otherwise such path would not be able to be traversed as previously submitted. In this regard, the Examiner's attention is referred to the specification at page 1, last line, to page 2, lines 1 and 2, where the description of a user/reader traversing a link is provided with respect to physical hyper-links within a printed reproduction of a document. Claims 17 to 19 make use of the term "reader interpretable and traversable physical path" as the term "user" and "reader" are considered inter-changeable in this regard (see page 1, line 15-28).

The links are "functional" in the sense that they function to afford user interpretability and traversability thereby giving the user/reader the ability to navigate a non-linear source document in its linearly reproduced form according to the present invention.

With respect to the direct support of the term "function" the Examiner is referred to page 7, lines 4 and 5, where specification states the "functionality of the hyper-links is to be retained in a printed copy reproduction of the document". Further, page 7, line 23, also refers to retaining "the hyper-linking functionality of the original document". Accordingly, the links are functional.

It is further observed that while the rejection of the term "functional link" has been raised, such does not appear to have precluded examination of this application and accordingly the term is considered to be readily interpretable on the face of the specification by an ordinary skilled worker in the relevant art.

Accordingly, withdrawal of the rejection under Section 112 is respectfully requested.

In addition, Claims 1-51 and 54 were rejected under 35 U.S.C. § 103(a) as being obvious from European Patent Application 775962 A2 (Yoda) in view of U.S. Patent 5,337,161 (Hube). For the following reasons, Applicant deems all the independent claims herein (and their dependent claims) to be clearly allowable over those documents.

Independent Claim 1 is directed to a method of creating a document suitable for hard copy reproduction, in which (a) information is received from at least one electronic source document, the information including a plurality of referential links establishing corresponding referential paths between components of the information, and (b) a physical

structure of the document is defined, suitable for hard copy reproduction and sufficient to reproduce the information. In addition, (c) a plurality of document links associated with the physical structure and corresponding to the referential links are defined, and (d) a functional link associated with each of those document links is generated, where each functional link forms a user interpretable and traversable physical path in the document between components of the information thereby corresponding to the received referential links. Furthermore, (e) a number of the functional links are arranged in the document for hard copy reproduction by arranging plural ones of the document links to at least an individual one of the functional links.

Applicant notes, from a careful study of the rejection, that the Examiner's application of the prior art to the claims appears to be based in part on the view that the page numbering in *Yoda* meets the terms of the claims according to which (referring to Claim 1) is performed:

> "arranging a number of the functional links by assigning plural ones of the document links to at least an individual one of the functional links".

While Applicant believes that he addressed this point in his previous response, he will attempt to do so more thoroughly.

As expressly recited in, for example, step (a) of Claim 1, the referential links are formed between components of the information contained in the electronic source document. It is those links that are then used to form document links and then functional links according to the method of Claim 1. The functional links provide connections between components of the information as reproduced on the document generated using Applicant's method of Claim 1.

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Page numbering, of itself, is not a "component of the information" to which the method of Claim 1 is directed. Page numbering can vary, as the Examiner will readily appreciate, depending upon any of a number of factors including the reproducible font size of text characters. It follows therefore that the page number is a general reference to the document information that can be found on that page. However, while there may be a link between page number and the content, the link is not fixed, but can vary depending on the nature of the printout. Once the document is printed, then this link becomes fixed. Applicant notes the Examiner's comment at page 5 of the Office Action, where it is stated:

> "printing page numbers for each linked
> document can determine the sequence of the
> printed linked documents".

The "sequence" being referred to in the Office Action is presumably a linear sequence of printed documents whereby the documents must be numbered in such a fashion that, when assembled, the page numbers are unique and able to be ordered. While documents may not necessarily be printed in an ordered fashion, the ultimate collation of those documents must provide a unique orderable numbering of pages in order to obtain a well-defined sequence and linking.

Further, and with reference to the amendments proposed to the claims, the functional link of the method of Claim 1 should satisfy at least three criteria, those being:

1. it should be user interpretable;

2. it should be user traversable as a physical path; and

3. it should be formed in the document and between the components of information.

Examples of these features are clearly seen in the present application and in particular the examples of Fig. 10 where the paths are clearly formed in the document and are quite distinct from page numbering.[1]

With reference to point (3) above, while a table of contents (for example) may have a reference to a particular target page number, and thus be considered "information", Applicant considers that the page number as it appears on the target page is not part of the "information" of that page. Further, that page number is only revealed upon printing of the pages, in the sequence mentioned in the Office Action. Significantly, the page numbers of a document in *Yoda* are printed regardless of the existence of any link to or from a page. They are not printed due to the detected presence of a link to a given page. It follows therefore that in *Yoda* there is no causal link between the page numbers and any linking being performed. Since *Yoda's* page numbering exists with or without linking, it is not understood how such can be interpreted as a teaching or suggestion of somehow using those page numbers to operate as functional links as in the method of Claim 1.

In that method, there is a causal linkage in the steps of the method of document creation. The hyperlinks are extracted from the source document and formed into document links in the physical structure to be reproduced. The document links are modified to be functional links that are then optimized in number by combining a number of the document links into a path formed by a functional link.

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[1] It is of course to be understood that the claim scope is not limited by the details of the particular embodiments or other examples referred to during this discussion.

In contrast, the causal linkage between the method steps of Claim 1 are not replicated in any combination of *Yoda* and *Hube* (even assuming for argument's sake that such combination would be a permissible one). In particular, as is expressly noted, *Hube* provides tab stock which is effectively pages having preformed tabs thereon. In any combination of *Yoda* and *Hube*, as proposed in the Office Action, page number references contained in the text of the document to be printed by *Yoda* therefore reference later pages in the document where the page numbers are printed on the tab stock. As a consequence, the formation of any links in the document of *Yoda* will require prior knowledge of the location of the tabs in the tab stock afforded by *Hube*. It follows therefore that any and all references to a particular page in *Hube* can only reference to *single* tab contained on that page. This necessitates *a priori* knowledge of the process of *Hube* as to the number of pages being printed and the particular format of the page layout also to be printed. But this also prevents, in contrast to the method of Claim 1, the provision of a *number* of tabs or *nested* tabs, as *Hube* only provides one tab per page. By further contrast, it is noted that the method of Claim 1 will process a document to be printed and, based on the document links present, will generate functional links required for the document links. Importantly, if a page of the document created by the method of Claim 1 is not referenced by any of the document links, then there will be no functional link formed on or referencing that page. Nevertheless, the page would still be printed with a page number as such is traditional in documents spanning more than one page.

The lack of a causal link between *Yoda* and *Hube* providing teachings of the present invention is most evident on page 5 of the Office Action where the Office Action expressly concedes that "*Yoda* does not explicitly disclose 'user interpretable functional links'"

and also, in the middle of the page, that "*Yoda* does not explicitly disclose 'traversable physical path'". Quite clearly, and admittedly, *Yoda* lacks two essential features of the method of Claim 1. The Office Action attempts to accommodate one of those features through reference to page numbering, which, however, as submitted above and previously, is not inherent in the "information" both in respect of the source and target of any link. Further, neither one, nor any combination, of *Yoda* and *Hube* provides any direct disclosure which would result in the formation of a "traversable physical path" from a source of a link to a target of the link in the hard copy document. In the context of the method of Claim 1, a page number is not considered a target of a link because, as previously submitted, and as clearly shown in the drawing and the description, the target of the link is that specific component of information to which the link is directed. Even if a page reference is thought of as a reference to all information contained on that page, it is not representative of the type of link contained in the original electronic source document. In this regard, the Examiner is reminded that electronic source documents, for example obtained from the Internet, and which may be viewed via a web browser, are not inherently page numbered as they permit the user to scroll through the entire document. Page numbering only becomes relevant when that electronic page is interpreted by a printer driver and, in a manner prescribed by certain printer settings (including font size for example) is reproduced on a number of printable hard copy pages. Again, the number of pages is not associated directly with the actual information content.

For all these reasons, it is believed to be clear that Claim 1 is allowable over *Yoda* and *Hube*, taken separately or in any possible combination (if any). These comments are equally applicable to Claims 20 and 36.

Independent Claim 17 is directed to an authoring system for creating a linear document that includes non-linear referential links. The system comprises means for specifying a linear document structure and hyperlinks of a hypermedia source document, means for associating the hyperlinks with physical links able to be formed in pages of the linear document, and means for modelling each physical link using a one-dimensional vector reproducible as a reader interpretable and traversable physical path in the linear document thereby functionally corresponding to the corresponding hyperlink. Also provided in the system are means for arranging a number of the physical links in the linear document by arranging a plurality of the hyperlinks to at least an individual one of the physical links.

Among other important features of Claim 17, thus, is that at least one of the functional links is ascribed to plural of the document links therefore providing the nesting and economical use of document space, as is alluded to in the introductory portion of the present application. At the least, this feature is not believed to be taught or suggested by anything found or pointed out in *Yoda* or in *Hube*. Claims 18 and 19 also are deemed allowable over those references by virtue of this feature.

Independent Claim 54 is directed to a hard copy document that comprises information received from at least one electronic source document, the source document including a plurality of non-linear referential links establishing corresponding referential paths between components of the information, and a functional link with a part thereof corresponding to plural ones of the non-linear referential links, where the functional link is part of a plurality of functional links formed in the hard copy document and provides user interpretable and

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traversable physical paths spanning plural pages of the hard copy document between corresponding components of the information.

This claim is deemed clearly allowable over *Yoda* and *Hube* for the reasons discussed above with regard to Claim 1.

Regarding newly added Claims 55-57, these are also believed to be allowable over any permissible combination of *Yoda* and *Hube*.

Independent Claim 55 is directed to a method of creating a print document suitable for hard-copy reproduction, in which (a) document data including plural page data is received, wherein one of the page data includes a plurality of referential links corresponding to predetermined pages of the document, (b) plural tabs are assigned to the pages, each of the tabs corresponding to one of the referential links, and (c) a plurality of the tabs are arranged in a group so that a user can access directly one of the predetermined pages from page data including the plurality of referential links.

Among other important features of Claim 55, thus, is the arranging of the tabs to a page and using the tabs to enable direct user access to a page linked by the page (element (b) of Claim 55). Attached is an explanatory drawing prepared to assist in the consideration of Claim 55 (the claim scope, again, is not limited by the details shown in this explanatory example). Further, even of *Yoda* and *Hube* are considered in combination, they do not disclose at least step (c) of Claim 55, being the arranging of plural tabs in a group. In *Hube* all tabs are laterally displaced and there is no suggestion of grouping.

Accordingly, Claim 55, and for the same reasons, Claims 56 and 57 as well, are deemed to be clearly allowable over those two patents.

The other claims in this application depend from one or another of the independent claims discussed above and, therefore, are submitted to be patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

For example, the interpretation, which as described above Applicant strongly believes is erroneous, of *Yoda's* page numbers as "document links" is noted in the comments regarding Claim 2 at page 6 of the Office Action. In this respect, it is not clear how plural page numbers can be represented by a single indicium in the printed page of *Yoda*. Further, such is certainly not disclosed in *Yoda*.

With respect to the rejection of Claim 3 which relies upon *Hube*, the rejection states that *Hube* could be modified according to *Yoda* to print tabs with printed page numbers. Whilst this is indeed possible, such limits to only one tab per page whereas Claim 3 clearly contemplates situations where more than one tab may be used, and also contemplates combinations where other links are combined with individual tabs or cut-outs to afford to economies suggested in the introductory portion of the patent specification and expressly claimed in step (e) of Claim 1, for example. Again, it is not clear why, according to any reasonable combination of *Hube* and *Yoda*, a page would be printed with two tabs both with the same page

number, or alternatively two tabs each tab having a different page number but on the same sheet.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

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